

99-120B

April 5, 2004

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572
28 Davis Avenue
Poughkeepsie, N.Y. 12603

Subject:

Serial No. 10/796,893 03/09/04

Lap Chan et al.

A NEW METHOD TO FORM A CROSS NETWORK
OF AIR GAPS WITHIN IMD LAYER

INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation
In An Application.

The following Patents and/or Publications are submitted to
comply with the duty of disclosure under CFR 1.97-1.99 and
37 CFR 1.56.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being
deposited with the United States Postal Service as first class
mail in an envelope addressed to: Commissioner for Patents,
P.O. Box 1450, Alexandria, VA 22313-1450, on April 12, 2004.

Stephen B. Ackerman, Reg.# 37761

Signature/Date

Stephen B. Ackerman 4/12/04

U.S. Patent 5,828,121 to Lur et al., "Multi-Level Conduction Structure for VLSI Circuits," describes an air gap between metal lines at different levels by etching the dielectric layers between the metal line levels.

U.S. Patent 5,783,864 to Dawson et al., "Multilevel Interconnect Structure of an Integrated Circuit having Air Gaps and Pillars Separating Levels of Interconnect," describes air gaps and pillars between metal layers.

U.S. Patent 5,561,085 to Gorowitz et al., "Structure of Protecting Air Bridges on Semiconductor Chips from Damage," describes a method for forming air gap bridges.

The following two U.S. Patents describe air gap processes:

- 1) U.S. Patent 5,461,003 to Havemann et al., "Multilevel Interconnect Structure with Air Gaps Formed Between Metal Leads."
- 2) U.S. Patent 5,527,737 to Jeng, "Selective Formation of Low-Density, Low-Dielectric-Constant Insulators in Narrow Gaps for Line-To-Line Capacitance Reduction."

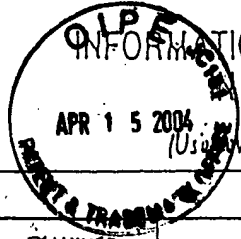
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U.S. Patent 5,908,318 to Wang et al., "Method of Forming Low Capacitance Interconnect Structures on Semiconductor Substrates," describes an air gap in an ILD by etch out.

Sincerely,

A handwritten signature in black ink, appearing to read 'SBA', with a stylized flourish extending to the right.

Stephen B. Ackerman,
Reg. No. 37761



INFORMATION DISCLOSURE CITATION IN AN APPLICATION

APR 15 2004

(Use several sheets if necessary)

Docket Number (Optional)

CS-99-120B

Application Number

10/796,893

Applicant

Lap Chan et al.

Filing Date

03/09/04

Drawn Art Unit

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	TITLE	CLASS	SUBCLASS	FILED DATE IF APPROPRIATE
	5828121	10/27/98	Lur et al.	257	522	6/27/96
	5783864	7/21/98	Dawson et al.	257	758	6/5/96
	5561085	10/1/96	Gorowitz et al.	437	209	12/19/94
	5527737	6/18/96	Jeng	437	195	5/27/94
	5908318	6/1/99	Wang et al.	438	619	9/17/97
	5461003	10/24/95	Havemann et al.	437	187	5/27/94

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Portion of Pages, Etc.)

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.